

**From:** [Jay Field](#)  
**To:** [Eric Blischke/R10/USEPA/US@EPA](#)  
**Cc:** [Burt Shephard/R10/USEPA/US@EPA](#); [Bob Dexter](#); [Chip Humphrey/R10/USEPA/US@EPA](#); [John Malek](#); [Joe Goulet/R10/USEPA/US@EPA](#); [PETERSON.Jennifer@deq.state.or.us](#); [Robert W. Gensemer](#); [Robert.Neely@noaa.gov](#)  
**Subject:** Re: Number of growth-based low level hits in the round 2 report  
**Date:** 06/06/2008 04:22 PM

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Eric,  
the statistics on mortality were included separately in the table. 10 samples for Hyalella and 13 for Chironomus were classified as Level 1 (statistical significant difference from control and between 80 and 90% control-adjusted survival.  
Jay

Blischke.Eric@epamail.epa.gov wrote:

> Does anyone have statistics on mortality since these were lumped in as  
> well?

> Eric

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Burt  
Shephard/R10/USE  
PA/US

06/06/2008 03:36  
PM

"Robert W. Gensemer"

<rgensemer@parametrix.com>

To

cc

Bob Dexter <bob@ridolfi.com>, Chip Humphrey/R10/USEPA/US@EPA, Eric Blischke/R10/USEPA/US@EPA, Jay Field <Jay.Field@noaa.gov>, John Malek <JMalek@parametrix.com>, Joe Goulet/R10/USEPA/US@EPA, "PETERSON.Jennifer@deq.state.or.us", "Robert.Neely@noaa.gov" <Robert.Neely@noaa.gov>

Subject

RE: Number of growth-based low level hits in the round 2 report (Document link: Eric Blischke)

> Good work, Jay!

> I told Joe I'd by either him or you the beverage of your choice  
> depending on who dug this out first, looks like you win. Maybe I need  
> to by all of us that drink after discussing this.

> Best regards,

> Burt Shephard  
> Risk Evaluation Unit  
> Office of Environmental Assessment (OEA-095)  
> U.S. Environmental Protection Agency, Region 10  
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> e-mail: Shephard.Burt@epa.gov

> "Facts are stubborn things"  
> - John Adams

"Robert W.  
Gensemer"  
<rgensemer@para  
metrix.com>

06/06/2008 03:09  
PM

Jay Field <Jay.Field@noaa.gov>

To

cc

Joe Goulet/R10/USEPA/US@EPA, Burt Shephard/R10/USEPA/US@EPA, "Robert.Neely@noaa.gov" <Robert.Neely@noaa.gov>, Eric Blischke/R10/USEPA/US@EPA, "PETERSON.Jennifer@deq.state.or.us", "PETERSON.Jennifer@deq.state.or.us", John Malek <JMalek@parametrix.com>, Bob

> Dexter <bob@ridolfi.com>, Chip  
 > Humphrey/R10/USEPA/US@EPA Subject  
 > RE: Number of growth-based low  
 > level hits in the round 2 report  
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 > That's great, Jay, thanks. The "level 1" data in your attached table are  
 > exactly the data we were discussing on tuesday, and do indeed support  
 > the existence of this lower level threshold group (the 80-90% effects  
 > group), even for growth endpoints. So it would appear to me that LWG  
 > lumped the Level 1 and 2 results into their single "level 2" category in  
 > the round 2 report (as in Table 3-30 of appendix G).  
 > -Bob  
 >  
 > From: Jay Field [mailto:Jay.Field@noaa.gov]  
 > Sent: Friday, June 06, 2008 3:05 PM  
 > To: Robert W. Gensemer  
 > Cc: Goulet.Joe@epamail.epa.gov; Shephard.Burt@epamail.epa.gov;  
 > Robert.Neely@noaa.gov; Blischke.Eric@epamail.epa.gov;  
 > PETERSON.Jennifer@deq.state.or.us; John Malek; Bob Dexter;  
 > Humphrey.Chip@epamail.epa.gov  
 > Subject: Re: Number of growth-based low level hits in the round 2 report  
 >  
 > Attached is a summary of the round 2 tox results. According to my  
 > analysis, 43 and 11 samples were significantly different from control  
 > and between 80 and 90% of control (Level 1) for Hyalella and Chironomus  
 > growth respectively. There were a few samples within the Level 1 range  
 > of difference from control that were not significantly different but  
 > most were significantly different. This indicates that the test can  
 > clearly discriminate differences at that level. Level 1 toxicity  
 > provides useful, valid risk assessment information and is important for  
 > evaluating spatial gradients. Whether it is critical for decision-making  
 > after the risk assessment is a risk management decision.  
 > Jay  
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 > Note: I am fairly certain that these results are consistent with LWG  
 > summaries but did not do a detailed check with Lorraine Read's  
 > spreadsheets. I would be glad to discuss this further when I am back  
 > from leave on Monday.  
 >  
 > Robert W. Gensemer wrote:  
 > P.S. Upon reading LWG's methods text more carefully, the analysis below  
 > may not be correct. As in the text screenshot appended below (page 21 of  
 > Appendix G), I think their "minor (L2)" effects have to EXCEED 80% and  
 > be significantly different from controls, so this would not be the  
 > 10-20% effects range we are seeking. Jay did mention he was sure  
 > significant effects on growth were observed for one or both species in  
 > the 10-20% effects range, so perhaps he can help guide us as to how to  
 > track these data down?  
 > -Bob  
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 >  
 > From: Robert W. Gensemer  
 > Sent: Wednesday, June 04, 2008 9:54 AM  
 > To: 'Jay Field'; Goulet.Joe@epamail.epa.gov  
 > Cc: Shephard.Burt@epamail.epa.gov; Robert.Neely@noaa.gov;  
 > Blischke.Eric@epamail.epa.gov; PETERSON.Jennifer@deq.state.or.us; John  
 > Malek; Bob Dexter; Humphrey.Chip@epamail.epa.gov  
 > Subject: Number of growth-based low level hits in the round 2 report  
 > Importance: High  
 >  
 > Folks: In response to the discussion on TCT this morning, I looked at  
 > the round 2 report for evidence of significant growth effects (both  
 > species) in the 10-20% effect range. LWG defined their "no effects (L1)"  
 > data as anything less than 90% control performance, and their "minor  
 > (L2)" effects as anything within 80% of control performance AND  
 > significantly different from controls. I interpret L2 as representing  
 > toxicity test results as being effects significantly less than controls  
 > and between 80-90% of control performance. IF this is a correct  
 > interpretation, here are the total numbers of samples in this "bin" from  
 > the round 2 report (Table 3-30 of Appendix G):  
 >  
 > Chironomus growth = 24 (10% of 223 total)  
 > Hyalella growth = 98 (42% of 233 total)  
 >  
 > Here is the whole table (if it comes through in the e-mail)  
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 >  
 > If I am interpreting this correctly, this would mean that 10 - 42% of  
 > the test results from Round 2 that our scheme would call a "minor  
 > effect" would become a "no effect" in LWG's proposed scheme. Please have  
 > a look and let me know if I'm missing something.  
 > -Bob  
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 > --  
 > Jay Field  
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